

WHAT IS CLAIMED IS:

1. A computer system comprising:
a semiconductor device connected with a memory network and
having a data processing function.
- 5 2. A computer system comprising:
a CPU;
a host bus connected with said CPU;
a core logic connected with said CPU through said host bus
and including a memory controller;
a memory network connected with said memory controller
included in said core logic;
a semiconductor device connected with said memory network
and having no data processing function;
a semiconductor device connected with said memory network
and having a data processing function;
a peripheral equipment bus connected with said core logic;
and
a mass storage device connected with said peripheral
equipment bus.
- 20 3. The computer system of Claim 2,
wherein said semiconductor device having the data
processing function is formed as a module.
4. A computer system comprising:
a semiconductor device connected with a memory network,
25 serving as a memory accessed by a controller through said
memory network and having a data processing function.
5. A computer system comprising:
a semiconductor device connected with a memory network and

having a memory emulation function.

6. A data processing method comprising the steps of:
writing data to be processed in a predetermined area
within a memory space of a semiconductor device having a data
processing function and serving as a memory;

processing said data by said semiconductor device and
writing resultant processed data in said predetermined area or
another predetermined area within said room; and

obtaining said resultant processed data by reading said
predetermined area or said another predetermined area within
said room of said semiconductor device after writing said
resultant processed data.

7. A data processing method by using a data processor
including a controller and a semiconductor device having a data
processing function and serving as a memory,

wherein said controller writes specification information
of a processing to be executed in a first area within a room of
said semiconductor device and writes data to be processed in a
second area within said room,

20 said semiconductor device subsequently processes said data
written in said second area on the basis of said processing
specification information written in said first area within
said room, and writes resultant processed data in a third area
within said room, and

25 said controller reads said resultant processed data from
said third area within said room.

8. The data processing method of Claim 7,

wherein said second area and said third area within said

room of said semiconductor device are the same area, and
said semiconductor device overwrites said resultant
processed data in said second area where said data has been
written.

5 9. The data processing method of Claim 7,
 wherein said controller reads time information required
 for said processing to be executed, and reads said resultant
 processed data written in said third area within said room on
 the basis of said read time information after time
 corresponding to said time information elapses.

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10 10. The data processing method of Claim 9,
 wherein said semiconductor device is connected with said
 controller through a memory network, and
 said controller stores time information required for each
 processing to be executed by said semiconductor device.

15 11. The data processing method of Claim 7, 8, 9 or 10,
 wherein, immediately before executing said processing by
 said semiconductor device having the data processing function,
 information describing said processing to be executed is
 20 dynamically rewritten for executing said processing.

25 12. A data processor comprising:
 a controller;
 a semiconductor device connected with said controller
 through a memory network and having a data processing function;
 and

 informing means for informing said controller that said
 semiconductor device has the data processing function and what
 type of data processing function said semiconductor device

has.

13. A data processing method by using a data processor including a controller, a semiconductor device connected with said controller through a memory network and having a data processing function and a semiconductor device connected with said memory network and having no data processing function,

wherein said controller repeatedly writes identification request information in a predetermined address of said semiconductor devices connected with said memory network, with a semiconductor device identification address successively varied;

said semiconductor device having the data processing function changes the written identification request information in accordance with the data processing function thereof;

said controller repeatedly reads data stored in said predetermined address of said semiconductor devices connected with said memory network, with said semiconductor device identification address successively varied again; and

said controller recognizes that each of said semiconductor device has or dose not have a data processing function and what type of data processing function said semiconductor device has.

Sub A2 14. The computer system, the data processor or the data processing method of Claim 1, 2, 3, 4, 5, 10, 12 or 13,

wherein said memory network has a bus network structure.

15. The computer system, the data processor or the data processing method of Claim 1, 2, 3, 4, 5, 10, 12 or 13,

wherein said memory network has a ring network

Sub A27 structure.

16. A semiconductor integrated circuit comprising:
a semiconductor device serving as a memory and having a
data processing function; and
changing means for dynamically changing a relationship
between a logical address within a memory address space
allocated to said semiconductor device and an actual physical
address.

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17. A computer system comprising:
plural memory networks; and
a semiconductor device having a data processing function,
wherein said semiconductor device is connected with said
plural memory networks and has a data exchange function to
transfer data between said plural memory networks.

18. A computer system comprising:
a semiconductor device connected with a memory network and
having a data processing function and an image displaying
function.

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